This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (cancelled)

2. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a

5   write operation from occurring for at least a first time period using a first timer, wherein said first time period is a time equal to an amount of time required for at least two disk hard sectors to pass beneath said transducer head;

specifying a write fault of at least a second magnitude, wherein said second magnitude is greater than said first magnitude;

10   in response to detecting a write fault of at least said second magnitude, preventing a write operation from occurring for a least a second time period using a second timer that is different from said first timer, wherein said second time period is greater than said first time period.

3. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a

5 write operation from occurring for at least a first time period using a first timer, wherein

said first time period is about 130 μs;

specifying a write fault of at least a second magnitude, wherein said second

magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing

10 a write operation from occurring for a least a second time period using a second timer

that is different from said first timer, wherein said second time period is greater than said

first time period.

4. (currently amended) A method for reducing track misregistration errors in a

disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a

5 write operation from occurring for at least a first time period using a first timer;

specifying a write fault of at least a second magnitude, wherein said second

magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing

a write operation from occurring for a least a second time period using a second timer

10 that is different from said first timer, wherein said second time period is greater than said

first time period and wherein said second time period is a time equivalent to an amount of

time required for at least 120 disk hard sectors to pass beneath said transducer head.

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5. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a write operation from occurring for at least a first time period using a first timer;

specifying a write fault of at least a second magnitude, wherein said second magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing a write operation from occurring for a least a second time period using a second timer that is different from said first timer, wherein said second time period is greater than said first time period and wherein said second time period is about 6 ms.

6. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a write operation from occurring for at least a first time period using a first timer;

specifying a write fault of at least a second magnitude, wherein said second magnitude is greater than about two times said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing a write operation from occurring for a least a second time period using a second timer that is different from said first timer, wherein said second time period is greater than said first time period.

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7. (cancelled)

8. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a write operation from occurring for at least a first time period <u>using a first timer</u>;

specifying a write fault of at least a second magnitude, wherein said second magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing a write operation from occurring for a least a second time period <u>using a second timer that is different from said first timer</u>, wherein said second time period is greater than said first time period, wherein said write faults are measured as a distance of a transducer head from a centerline of a data track, and wherein said second magnitude comprises a write fault of about 35% of a data track width.

9. (previously presented) The method of Claim 8, wherein said first magnitude comprises a write fault of greater than about 15% of a data track width.

10. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a

5   write operation from occurring for at least a first time period <u>using a first timer</u>;

specifying a write fault of at least a second magnitude, wherein said second

magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing

a write operation from occurring for a least a second time period <u>using a second timer</u>

10   <u>that is different from said first timer</u>, wherein said second time period is greater than said

first time period and wherein said second time period is equivalent to a time required for

a disk in said disk drive make at least 1/4 of a revolution but less than a full revolution.

11. (currently amended) A method for reducing track misregistration errors in a

disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a

5   write operation from occurring for at least a first time period <u>using a first timer</u>;

specifying a write fault of at least a second magnitude, wherein said second

magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing

a write operation from occurring for a least a second time period <u>using a second timer</u>

10   <u>that is different from said first timer</u>, wherein said second time period is greater than said

first time period and wherein said second time period is equivalent to a time required for

a disk in said disk drive to make at least ½ a revolution but not more than 3/4 of a

revolution.

12. (currently amended) A method for reducing track misregistration errors in a disk drive, comprising:

specifying a write fault of at least a first magnitude;

in response to detecting a write fault of at least said first magnitude, preventing a write operation from occurring for at least a first time period using a first timer;

specifying a write fault of at least a second magnitude, wherein said second magnitude is greater than said first magnitude;

in response to detecting a write fault of at least said second magnitude, preventing a write operation from occurring for a least a second time period using a second timer that is different from said first timer, wherein said second time period is greater than said first time period and wherein said second the period is equivalent to a time required for a disk in said disk drive to make about 3/4 of a revolution.

13. (cancelled)

14. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of data sectors by servo sectors, and wherein said disks may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said

transducer head is movable in a radial direction with respect to said disk to address a

10   selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said

transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of

said transducer head with respect to said data tracks, wherein said controller receives

15   information concerning a position of said transducer head with respect to a centerline of a

track being followed by said transducer head from said read head, wherein following a

deviation of said transducer head from said centerline by a first distance, said write head

is prevented from writing information to said data track for a first time period using a first

timer, wherein said first time period is a time equal to an amount of time required for at

20   least two servo sectors to pass beneath said transducer head, wherein following a

deviation of said transducer head from said centerline by a second distance, greater than

said first distance, said write head is prevented from writing information to said data

track for a second time period, greater than said first time period, using a second timer

that is different from said first timer.

15. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said

spindle, wherein each of said data tracks is segmented into a plurality of data sectors by

5   servo sectors, and wherein said disks may be rotated at a constant velocity with respect to

said base;

a transducer head having a read head for reading information from said data

tracks and a write head for writing information to said data tracks, wherein said

transducer head is movable in a radial direction with respect to said disk to address a

10   selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said

transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of

said transducer head with respect to said data tracks, wherein said controller receives

15   information concerning a position of said transducer head with respect to a centerline of a

track being followed by said transducer head from said read head, wherein following a

deviation of said transducer head from said centerline by a first distance, said write head

is prevented from writing information to said data track for a first time period using a first

timer, wherein said first time period is about 130 μs, wherein following a deviation of

20   said transducer head from said centerline by a second distance, greater than said first

distance, said write head is prevented from writing information to said data track for a

second time period, greater than said first time period, using a second timer that is

different from said first timer.

16. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said

spindle, wherein each of said data tracks is segmented into a plurality of data sectors by

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5   servo sectors, and wherein said disks may be rotated at a constant velocity with respect to

said base;

a transducer head having a read head for reading information from said data

tracks and a write head for writing information to said data tracks, wherein said

transducer head is movable in a radial direction with respect to said disk to address a

10   selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said

transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of

said transducer head with respect to said data tracks, wherein said controller receives

15   information concerning a position of said transducer head with respect to a centerline of a

track being followed by said transducer head from said read head, wherein following a

deviation of said transducer head from said centerline by a first distance, said write head

is prevented from writing information to said data track for a first time period <u>using a first</u>

<u>timer</u>, wherein following a deviation of said transducer head from said centerline by a

20   second distance, greater than said first distance, said write head is prevented from writing

information to said data track for a second time period, greater than said first time period,

<u>using a second timer that is different from said first timer</u>, wherein said second time

period is a time equivalent to an amount of time required for at least 120 servo sectors to

pass beneath said transducer head.

17. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of data sectors by servo sectors, and wherein said disks may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives information concerning a position of said transducer head with respect to a centerline of a track being followed by said transducer head from said read head, wherein following a deviation of said transducer head from said centerline by a first distance, said write head is prevented from writing information to said data track for a first time period using a first timer, wherein following a deviation of said transducer head from said centerline by a second distance, greater than said first distance, said write head is prevented from writing information to said data track for a second time period, greater than said first time period, using a second timer that is different from said first timer, wherein said second time period is about 6 ms.

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18. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of data sectors by servo sectors, and wherein said disks may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives information concerning a position of said transducer head with respect to a centerline of a track being followed by said transducer head from said read head, wherein following a deviation of said transducer head from said centerline by a first distance, said write head is prevented from writing information to said data track for a first time period using a first timer, wherein following a deviation of said transducer head from said centerline by a second distance, greater than said first distance, said write head is prevented from writing information to said data track for a second time period, greater than said first time period, using a second timer that is different from said first timer, wherein said second distance is greater than about two times said first distance.

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19. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of data sectors by servo sectors, and wherein said disks may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives information concerning a position of said transducer head with respect to a centerline of a track being followed by said transducer head from said read head, wherein following a deviation of said transducer head from said centerline by a first distance, said write head is prevented from writing information to said data track for a first time period using a first timer, wherein following a deviation of said transducer head from said centerline by a second distance, greater than said first distance, said write head is prevented from writing information to said data track for a second time period, greater than said first time period, using a second timer different from said first timer, wherein said second distance comprises a write fault of about 35% of a data track width.

20. (previously presented) The hard disk drive of Claim 19, wherein said first distance comprises a write fault of greater than about 15% of a data track width.

21. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of data sectors by

5   servo sectors, and wherein said disks may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a

10   selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives

15   information concerning a position of said transducer head with respect to a centerline of a track being followed by said transducer head from said read head, wherein following a deviation of said transducer head from said centerline by a first distance, said write head is prevented from writing information to said data track for a first time period using a first timer, wherein following a deviation of said transducer head from said centerline by a

20   second distance, greater than said first distance, said write head is prevented from writing

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information to said data track for a second time period, greater than said first time period,

using a second timer that is different from said first timer, wherein said second time

period is equivalent to a time required for said disk to make at least 1/4 of a revolution

but less than a full revolution.

22. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said

spindle, wherein each of said data tracks is segmented into a plurality of data sectors by

5   servo sectors, and wherein said disks may be rotated at a constant velocity with respect to

said base;

a transducer head having a read head for reading information from said data

tracks and a write head for writing information to said data tracks, wherein said

transducer head is movable in a radial direction with respect to said disk to address a

10   selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said

transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of

said transducer head with respect to said data tracks, wherein said controller receives

15   information concerning a position of said transducer head with respect to a centerline of a

track being followed by said transducer head from said read head, wherein following a

deviation of said transducer head from said centerline by a first distance, said write head

is prevented from writing information to said data track for a first time period using a first

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timer, wherein following a deviation of said transducer head from said centerline by a

20 second distance, greater than said first distance, said write head is prevented from writing

information to said data track for a second time period, greater than said first time period,

using a second timer that is different from said first timer, wherein said second time

period is equivalent to a time required for said disk to make at least ½ a revolution but

not more than 3/4 of a revolution.

23. (currently amended) A hard disk drive comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said

spindle, wherein each of said data tracks is segmented into a plurality of data sectors by

5 servo sectors, and wherein said disks may be rotated at a constant velocity with respect to

said base;

a transducer head having a read head for reading information from said data

tracks and a write head for writing information to said data tracks, wherein said

transducer head is movable in a radial direction with respect to said disk to address a

10 selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said

transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of

said transducer head with respect to said data tracks, wherein said controller receives

15 information concerning a position of said transducer head with respect to a centerline of a

track being followed by said transducer head from said read head, wherein following a

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deviation of said transducer head from said centerline by a first distance, said write head

is prevented from writing information to said data track for a first time period <u>using a first</u>

<u>timer,</u> wherein following a deviation of said transducer head from said centerline by a

20 second distance, greater than said first distance, said write head is prevented from writing

information to said data track for a second time period, greater than said first time period,

<u>using a second timer that is different from said first timer,</u> wherein said second time

period is equivalent to a time required for said disk to make about 3/4 of a revolution.

24. (withdrawn) A method for reducing the off-track position of a disk drive

transducer head, comprising:

setting a first write fault threshold as an active write fault threshold;

detecting a first off-track event having a magnitude greater than said first write

5 fault threshold;

in response to said first off-track event, setting a second write fault threshold,

wherein said first write fault threshold corresponds to a larger off-track event than said

second write fault threshold, and wherein said second write fault threshold is set as said

active write fault threshold for at least a predetermined period of time;

10 detecting a second off-track event having a magnitude greater than said second

write fault threshold but less than said first write fault threshold during said period that

said second write fault threshold is set as said active write fault threshold; and

in response to said second off-track event, signaling a write fault.

25. (withdrawn) The method of Claim 24, wherein said first and second write fault thresholds comprise predetermined distances of said transducer head from a centerline of a target track, and wherein said steps of detecting first and second off-track events comprise detecting movement of said transducer head to a position at a distance from said target track centerline greater than said respective first or second write fault thresholds.

26. (withdrawn) The method of Claim 24, wherein said step of detecting a an off-track event comprises detecting a velocity with which said transducer head crosses a third write fault threshold, wherein said third write fault threshold comprises a predetermined distance from a centerline of a target data track.

27. (withdrawn) The method of Claim 24, wherein said first write fault threshold is equal to said third write fault threshold.

28. (withdrawn) The method of Claim 24, wherein said first write fault threshold has a magnitude of about two times a magnitude of said second write fault threshold.

29. (withdrawn) The method of Claim 24, wherein said first write fault threshold corresponds to a distance of said transducer head from a centerline of a data track equal to about 35% of a width of said data track.

30. (withdrawn) The method of Claim 24, wherein said second write fault threshold corresponds to a distance of said transducer head from a centerline of a data track equal to about 15% of a width of said data track.

31. (withdrawn) The method of Claim 24, wherein a write fault is signaled in response to said first off-track event.

32. (withdrawn) A hard disk drive, comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of sectors, and wherein said disk may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a selected one of said plurality of data tracks;

a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives information concerning a position of said transducer head with respect to a centerline of a track being followed by said transducer head from said read head, wherein following detection of a first off-track event of at least a first magnitude a write fault is triggered,

wherein following detection of a second off-track event of at least a second magnitude within a predetermined amount of time following said first off-track event, a write fault is triggered, and wherein said first magnitude is greater than said second magnitude.

33. (withdrawn) The hard disk drive of Claim 32, wherein said first off-track event is detected as a deviation of said transducer head from a centerline of a target track by at least a first predetermined distance, and wherein said second off-track event is detected as a deviation of said transducer head from a centerline of a target track by at least a second predetermined distance.

34. (withdrawn) The hard disk drive of Claim 32, wherein said step of detecting a first off-track event comprises detecting a velocity with which said transducer head crosses a predetermined distance from a centerline of a target data track.

35. (withdrawn) The hard disk drive of Claim 32, wherein said first magnitude is about two times said second magnitude.

36. (withdrawn) The hard disk drive of Claim 32, wherein said first magnitude corresponds to a distance of said transducer head from a centerline of a data track equal to about 35% of a width of said data track.

37. (withdrawn) The hard disk drive of Claim 32, wherein said second magnitude corresponds to a distance of said transducer head from a centerline of a data track equal to about 15% of a width of said data track.

38. (withdrawn) A method for reducing the off-track position of a disk drive transducer head, comprising:

setting a first write fault threshold value;

measuring a distance of said transducer head from a centerline of a target data

5   tracks within at least a first period of time;

calculating an accumulated offset value;

comparing said accumulated offset value to said accumulated offset threshold

value; and

modifying transducer head position control parameters if said accumulated offset

10   value is greater than said accumulated offset threshold value.

39. (withdrawn) The method of Claim 38, wherein said distance of said transducer head from a centerline of a target data track is measured at discrete moments in time during said at least a first period of time.

40. (withdrawn) The method of Claim 38, wherein said steps of calculating an accumulated offset value comprises:

determining, for each of the last N servo sectors over which such transducer head has passed, a position error with respect to a center line of a target track;

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5   calculating a sum of said N position errors;

dividing said sum of N position errors by N to obtain an average position error;

determining a position error with respect to a next servo sector;

calculating a difference said average position error and said position error with

respect to said next servo sector;

10   dividing said difference by N to obtain a quotient;

adding said quotient to said average position error to obtain a new average

position error; and

setting said new average position error equal to said accumulated offset value.

41. (withdrawn) The method of Claim 38, wherein said accumulated offset value

comprises at least four measurements of said distance of said transducer head from a

centerline of said data track.

42. (withdrawn) The method of Claim 38, wherein said step of modifying said

transducer head position control parameters comprises prohibiting a transducer head

write operation for at least a second period of time.

43. (withdrawn) The method of Claim 42, wherein said second period of time is

about 4ms.

44. (withdrawn) The method of Claim 38, wherein said step of modifying said

transducer head position control parameters comprises setting a second write fault

threshold value, wherein said second write fault threshold value has a magnitude that is less than said first write fault threshold value.

45. (withdrawn) A hard disk drive, comprising:

a base;

a disk comprising a plurality of data tracks arranged concentrically about said spindle, wherein each of said data tracks is segmented into a plurality of sectors, and

5   wherein said disk may be rotated at a constant velocity with respect to said base;

a transducer head having a read head for reading information from said data tracks and a write head for writing information to said data tracks, wherein said transducer head is movable in a radial direction with respect to said disk to address a selected one of said plurality of data tracks;

10   a voice coil motor, interconnected to said transducer head, for moving said transducer head with respect to said data tracks;

a controller, interconnected to said voice coil motor, for controlling a position of said transducer head with respect to said data tracks, wherein said controller receives information concerning a position error of said transducer head with respect to a

15   centerline of a track being followed by said transducer head from said read head, wherein said information concerning a position error is accumulated over a first period of time to obtain an accumulated position error, wherein parameters of said controller are modified for at least a second period of time if said accumulated position error is greater than an accumulated offset threshold value.

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46. (withdrawn) The hard disk drive of Claim 45, wherein said position error of said transducer head is measured at discrete moments in time during said at least a first period of time.

47. (withdrawn) The hard disk drive of Claim 45, wherein said accumulated position error comprises at least four measurements of said distance of said transducer head from a centerline of said track being followed.

48. (withdrawn) The hard disk drive of Claim 45, wherein parameters of said controller modified for at least said second period of time include prohibiting a transducer head write operations for at least said second period of time.

49. (withdrawn) The hard disk drive of Claim 45, wherein said second period of time is about 4ms.

50. (withdrawn) The hard disk drive of Claim 45, wherein said step of modifying said transducer head position control parameters comprises setting a second write fault threshold value, wherein said second write fault threshold value has a magnitude that is less than said first write fault threshold value.

51. (cancelled)

52. (cancelled)

53. (cancelled)

54. (cancelled)

55. (cancelled)

56. (cancelled)

57. (cancelled)

58. (cancelled)

59. (cancelled)

60. (currently amended) A method for reducing track misregistration errors in a

disk drive, comprising:

detecting an off-track event, wherein a transducer head of said disk drive is

outside of an off-track threshold;

5   comparing a magnitude of said detected off-track event to a severe shock

threshold;

prohibiting write operations for an extended period of time, using a first timer, if

said detected off-track event exceeds said severe shock threshold; and,

prohibiting write operations for a shortened period of time, using a second timer

10   different from said first timer, if said detected off-track event does not exceed said severe

shock threshold, wherein said shortened period of time is equivalent to an amount of

required for at least 2 data track sectors to pass beneath said transducer head.

61. (currently amended) A method for reducing track misregistration errors in a

disk drive, comprising:

detecting an off-track event, wherein a transducer head of said disk drive is

outside of an off-track threshold;

5   comparing a magnitude of said detected off-track event to a severe shock

threshold;

prohibiting write operations for an extended period of time, using a first timer, if

said detected off-track event exceeds said severe shock threshold; and,

prohibiting write operations for a shortened period of time, using a second timer

10   different from said first timer, if said detected off-track event does not exceed said severe

shock threshold, wherein said shortened period of time is about 130 ms.

62. (previously presented) The method of Claim 55, wherein an off-track event

comprises a deviation of said transducer head from a centerline of a data track by a

distance equivalent to about 15% of a width of said data track.

63. (new) The method of claim 2, wherein operation of the first timer and

operation of the second timer overlap.

64. (new) The method of claim 3, wherein operation of the first timer and operation of the second timer overlap.

65. (new) The method of claim 4, wherein operation of the first timer and operation of the second timer overlap.

66. (new) The method of claim 5, wherein operation of the first timer and operation of the second timer overlap.

67. (new) The method of claim 6, wherein operation of the first timer and operation of the second timer overlap.

68. (new) The method of claim 8, wherein operation of the first timer and operation of the second timer overlap.

69. (new) The method of claim 10, wherein operation of the first timer and operation of the second timer overlap.

70. (new) The method of claim 11, wherein operation of the first timer and operation of the second timer overlap.

71. (new) The method of claim 12, wherein operation of the first timer and operation of the second timer overlap.

72. (new) The hard disk drive of claim 14, wherein operation of the first timer and operation of the second timer overlap.

73. (new) The hard disk drive of claim 15, wherein operation of the first timer and operation of the second timer overlap.

74. (new) The hard disk drive of claim 16, wherein operation of the first timer and operation of the second timer overlap.

75. (new) The hard disk drive of claim 17, wherein operation of the first timer and operation of the second timer overlap.

76. (new) The hard disk drive of claim 18, wherein operation of the first timer and operation of the second timer overlap.

77. (new) The hard disk drive of claim 19, wherein operation of the first timer and operation of the second timer overlap.

78. (new) The hard disk drive of claim 21, wherein operation of the first timer and operation of the second timer overlap.

79. (new) The hard disk drive of claim 22, wherein operation of the first timer and operation of the second timer overlap.

80. (new) The hard disk drive of claim 23, wherein operation of the first timer and operation of the second timer overlap.

81. (new) The method of claim 60, wherein operation of the first timer and operation of the second timer overlap.

82. (new) The method of claim 61, wherein operation of the first timer and operation of the second timer overlap.